

## ABSTRACT OF THE DISCLOSURE

5 A semiconductor laser capable of emitting in any one of  
standard communication wavelengths is of great practical  
value. To this end, a single semiconductor chip is fabricated  
on which many different distributed feedback (DFB) lasers are  
integrated. The device parameters of the different DFB lasers  
are varied such that each laser emits at a different  
10 wavelength. In addition a micro-mechanical optical element is  
packaged with the laser array, such that the position of the  
optical element controls which laser stripe is coupled to the  
output fiber. The micro-mechanical element or switch in  
various embodiments is a sliding waveguide, a movable lens, or  
15 a mirror that tilts. By selecting the particular DFB laser,  
controlling the temperature to fine tune the wavelength, and  
adjusting the position of the micro-mechanical optical  
element, the output wavelength is set to one of many  
communication wavelengths.

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